# Using bbscp for Test and Verification

## Category: File Transfers

## DRAFT

This article is being reviewed for completeness and technical accuracy.

The following examples provide test and verification data and sample commands for using bbscp between two hosts (crow & cfe3.nas.nasa.gov or dmzfs1.nas.nasa.gov).

1. Straight file transfer
2. Renaming file at destination
3. Adjusting the TCP window size
4. Dry run and Debugging

### Straight file transfer

This example demonstrates the tranfer of a file named *100mb*.

```
crow% bbscp -V 100mb user@cfe3.nas.nasa.gov:/nobackup1/user/

/home/user/bin/bbscp: will run commandline:
   bbftp -s -r 1 -V -p 8 -u user -i /tmp/bbscp.lKCrSUg cfe3.nas.nasa.gov

/home/user/bin/bbscp: begin output of bbftp:

----------------------------------------------------------------
WARNING! This is a US Government computer. This system is for
.....
----------------------------------------------------------------
Authenticated with partial success.

Plugin authentication

Enter PASSCODE:

>> COMMAND : setoption keepaccess
<< OK
>> COMMAND : setoption keepmode
<<  OK
>> COMMAND : setoption nocreatedir
<<  OK
>> COMMAND : put 100mb /nobackup1/user/100mb
<<  OK
104857600 bytes send in 5.43 secs (1.89e+04 Kbytes/sec or 147 Mbits/s)
```

```
/home/user/bin/bbscp: end output of bbftp
```

**Renaming file at destination**

Transfer a single file (named *100mb*) and rename it (to *crow-100mb*) at the destination; both local-to-remote and remote-to-local transfer is supported.

```
crow% bbscp -V -N 100mb user@cfe3.nas.nasa.gov:/nobackup1/user/crow-100mb

/home/user/bin/bbscp: will run commandline:
                    bbftp -s -r 1 -V -p 8 -u user -i

/tmp/bbscp.5eUBcTX cfe3.nas.nasa.gov

/home/user/bin/bbscp: begin output of bbftp:

-----------------------------------------------------------------

WARNING! This is a US Government computer. This system is for
.....
-----------------------------------------------------------------

Authenticated with partial success.

Plugin authentication

Enter PASSCODE:

>> COMMAND : setoption keepaccess
<< OK
>> COMMAND : setoption keepmode
<< OK
>> COMMAND : setoption nocreatedir
<< OK
>> COMMAND : put 100mb /nobackup1/user/crow-100mb
<< OK
104857600 bytes send in 5.3 secs (1.93e+04 Kbytes/sec or 151 Mbits/s)

/home/user/bin/bbscp: end output of bbftp
```

**Adjusting the TCP window size**

This example demonstrates the use of -X and -Y options to set the TCP window size (available in bbscp Version 1.0.2 and above).

```
crow% ./bbscp -V -N -X 2000 -Y 2000 1gig.dat user@dmzfs1.nas.nasa.gov:/home/user/garbag

bbscp: will run commandline:
      bbftp -s -r 1 -V -p 8 -u kfreeman
            -i /tmp/bbscp.SNxL5RT dmzfs1.nas.nasa.gov

bbscp: begin output of bbftp:

user@dmzfs1.nas.nasa.gov's password:
```

```
>> COMMAND : setoption keepaccess
<< OK
>> COMMAND : setoption keepmode
<< OK
>> COMMAND : setoption nocreatedir
<< OK
>> COMMAND : setsendwinsize 2000
<< OK
>> COMMAND : setrecvwinsize 2000
<< OK
>> COMMAND : put 1gig.dat /home/kfreeman/garbage.dat
<< OK

1109393408 bytes send in 34.6 secs (3.13e+04 Kbytes/sec or 244 Mbits/s)

bbscp: end output of bbftp
```

## Dry run/debugging

This example demonstrates the use of the -d option for dry run. In this case, the bbscp script performs its duty but does not actually execute bbFTP. The bbFTP command line is printed, along with the contents of the bbFTP control-file.

```
cfe3.user% bbscp -d -V -N one-gig user@crow.eos.nasa.gov:/home/user/data/cfe3-one-gig
/usr/local/bin/bbscp: would have run commandline:
                    bbftp -s -r 1 -V -p 8 -u user
                    -i /tmp/bbscp.4PZYIuL crow.eos.nasa.gov

/usr/local/bin/bbscp: bbftp control-file (/tmp/bbscp.4PZYIuL) looks like:

setoption keepaccess
setoption keepmode
setoption nocreatedir
put one-gig /home/user/data/cfe3-one-gig
```

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